



DOMINICA

ANNUAL REPORT

OF THE

Department of Agriculture

AND

Forestry

FOR THE YEAR

1952





ADMINISTRATION REPORT

OF THE

DEPARTMENT OF AGRICULTURE & FORESTRY

DOMINICA

1952.

Shingles The price of shingles has risen also and apart from peasant cottages, imported substitutes such as corrugated sheet (asbestos, galvanized and aluminium) asbestos flat sheet and roofing felts are being used in ever increasing quantities for siding and roofs.

Charcoal The price has stabilized at about \$3.40 per 100 lb. bag. Again lack of burners, due to other activities mainly Banana growing and increased employment on public works is the reason for the high price. Only some thirty persons applied for permits to burn on Crown Lands. In most cases the applicants were unwilling to burn where it was considered suitable. The Warner area near Mahaut has been the main source for Roseau. In order to keep charcoal prices at the present level until development of roads permit burning in Crown Lands this area, which has accessible Crown Lands is being sacrificed to the needs of the community.

Cordwood

Crown Lands. No cordwood sales are permitted. A few cords were cut on a small plot which was being opened up to encourage regeneration in an accessible strip of Secondary Forest in the Brantridge (Transinsular Road) area.

wood is Private Lands. As mentioned earlier in this report uncontrolled rep-exploitation of Forest takes place on all accessible lands. @ dly Efforts to introduce rotational cordwood cutting were met with g derision.

roads

Other Produce. Sales are negligible

<u>Crown Land produce worked</u>	<u>No.</u>	<u>Value</u>
Trees sold	301	\$871.68
Wood by the cord	4	2.00
Minor Forest Produce	-	29.42
Extension to Licences	-	9.12
		<u>\$912.22</u>

Export of Forest Produce

Export of sawn timber is rigidly controlled both to preserve quality and prevent excess export which would result in local scarcity and soaring prices.

308 cords of Firewood were exported to Barbados and valued at \$2,464.00

Imports

Imports mainly of soft-woods, must remain high so long as the majority of the island's forests remain inaccessible to mechanical methods of extraction and conversion.

Attempts to import pine from the Bahamas was a failure due to shipping difficulties. It is hoped that it will be possible to overcome the difficulty in order to release American and Canadian dollars for more valuable products.

Import of Softwoods was as follows:-

<u>Type of Wood</u>	<u>Origin</u>	<u>Qt.</u>	<u>Value</u>
			B.W.I. \$
Soft	Canada	31,178	9,005

Sawmilling. The one small mill was mainly used for custom sawing due to the poor log supply.

Revenue Each year since 1949 has been increased revenue but the amount must remain small until the Crown Forests become accessible.

Sales of Forest Produce	\$912.22
Compensation for offences @	120.48
	<u>\$1032.70</u>

@ Excludes Court cases

Expenditure Scheme D 1042

Capital	\$1483.90
Recurrent	21159.43
	<u>\$22643.33</u>

At the 1952 Budget session it was decided that the Forest Service Recurrent expenditure should be borne by local funds as from January 1st, 1953. This indirect recognition of the value of the Forest Service is greatly appreciated. Capital expenditure will remain as a C.D & W Charge until 1956.

Forest Stations: All the Field Staff with the exception of the Forest Supervisor is now housed. In districts where there are roads, the houses are on roadside. This is reducing larceny considerably.

Scheme D 1042A. Expenditure during year \$12,831.80

Sylviculture and Research. Due to the nature of Scheme D 1042 funds were not made available for such work on any scale. A small plot of one acre of secondary forest was opened up to see whether regeneration of valuable species would show any promise. It is too early to be dogmatic but a number of valuable species notably *Chimarrhis cymosa* and *Richeria grandis* show promise. The shelterwood is only about 30' high and the species useless for timber so that if it can be replaced effectively on a small scale a larger area will be tried using prison labour to cut cordwood and at the same time to improve the forest.

Preservation of Nature. The game laws are a dead letter due to the attitude of all classes of the community toward them. Dynamiting and poison and shooting of game birds out of season, continues. Nothing will be possible until a lead by responsible citizens is given.

Control of Government Lands. Scheme D 1743 with the above title was approved in April 1952 and replaced Interim Scheme D 1309 which was approved in 1950 as a stop gap until investigation into a full scheme could be completed. Under D 1743 allowance is made for the employment of 6 surveyors, 16 Conservation Instructors to work on all field aspects of the scheme, and for an officer to assume administrative and field control under the Assistant Conservator.

A draughtsman and Clerical Assistant augment the present Forestry Office Staff.

Trouble was experienced in securing Surveyors but two were at work at the end of the year. The Salary for the Administrative post was too low to attract the type of man required. It is planned to revise the salary upward.

In addition to staff, funds were made available for the purchase of certain estates for settlement purposes should this prove practical and to carry out Conservation works on peasant holdings.

Some valuable work had been carried out under the Interim Scheme but lack of funds and staff had prevented full scale treatment of squatters problems.

The organization expanded during 1952 and the following progress was achieved.

Office

- (1) All existing plans in the Registry were traced, classified and card indexed in the Lands Office.

- (2) Squatters and applicants for land were card indexed.
- (3) Increased tempo of administrative paper work initiated so that delay between application for land and occupation by the peasant is reduced to a minimum.
- (4) Survey section organized. Draughtsman trained to handle plotting, tracing and printing.

Field Staff

- (1) Island divided into 12 sections. 1 Conservation Instructor per section. 4 spare men for special problems these men work under the supervision of the Agricultural Department extension staff.
- (2) Inspection of lands accelerated.
- (3) Payment by instalment system fully explained to people and put into operation.
- (4) Eviction of those proving un-cooperative initiated.
- (5) Conservation works on holdings begun late in the year.
- (6) Search for lands suitable for settling new applicants begun in December.

Survey Staff

- (1) Backlog of surveys completed with the exception of a few difficult dispute cases.
- (2) Routine surveys for sale begun as survey payments completed.
- (3) Investigation of glaring cases of misappropriation of Crown Land by private land owners begun.

The following figures give some idea of progress and the problem in hand:

Number of Squatters listed and about which details are known, estimated at 60% of the total number of squatters	1,600
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Number of applicants to purchase squatted lands or for new land	1,123
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Persons whose purchase of land is approved. This figure will increase rapidly as the new staff gets to know the country	300
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Surveys outstanding with all fees paid	54
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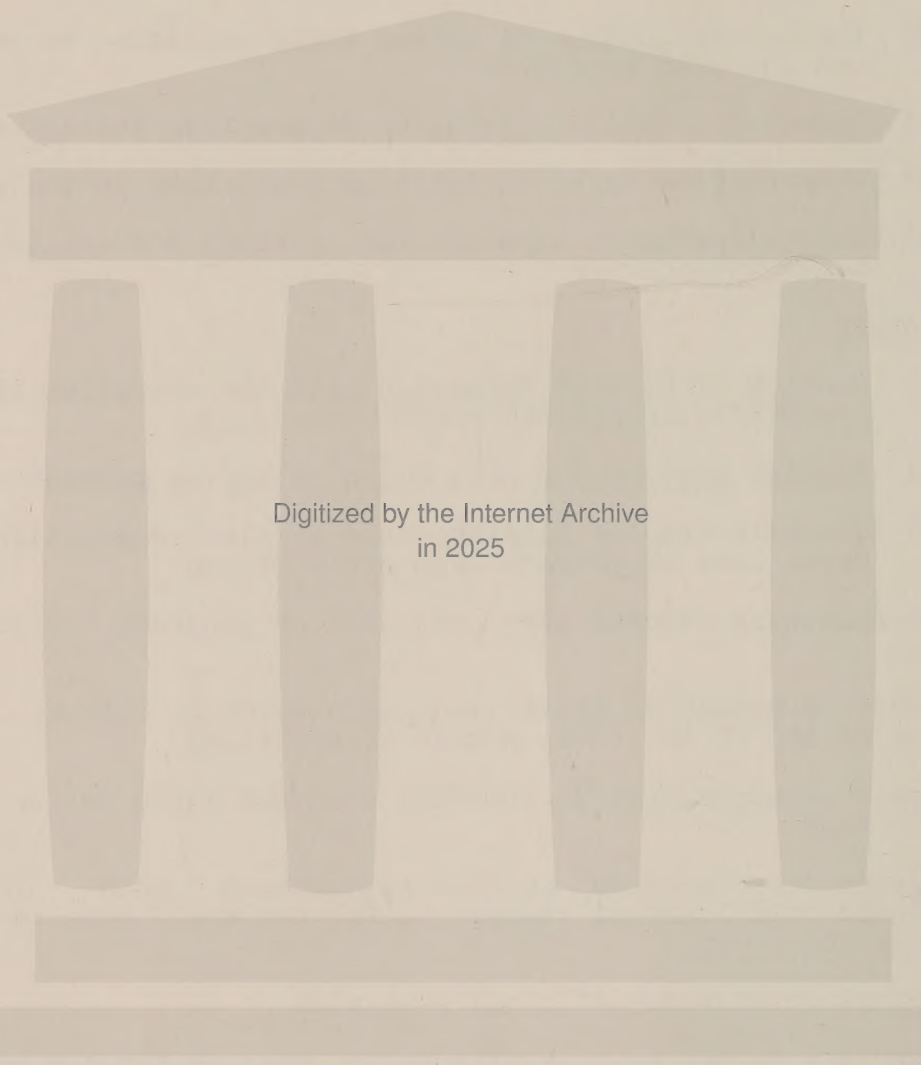
(Survey rate has been so slow in the past that years have passed before surveys are begun. This has resulted in very slow payment of fees. The payment rate is increasing but it is hoped that 6 surveyors will be able to handle the work).

Surveys completed and awaiting grant of title (Work of 1 Surveyor).	73
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The new scheme is working as well as may be expected for its first nine months of operation. The main problems are to deal with numbers in such broken country and to maintain a high standard of survey accuracy when so few of the present owners of land know their exact boundaries.

A private surveyor to deal with land disputes between private individuals is needed very badly.

Expenditure Scheme D. 1743	Capital	\$4,946.11	
	Recurrent	13,905.63	\$18,851.74



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Visits: F.S. Collier Esq., C.B.E. Forestry Adviser to the Secretary of State visited the island for a week in early December.

A de K. Frampton Esq., C.M.G. Agricultural Adviser to the Comptroller Development and Welfare West Indies paid a visit in early September.

Mr. Frank H. Wadsworth of the Federal Forest Service, Puerto Rico spent a few days here in July.

Acknowledgments: The Caribbean Forester and the Trinidad Forest Departments Annual Report are acknowledged together with numerous other publications.

As this is the writers last annual report for Dominica he wishes to acknowledge the hard work and Devotion to duty shown by the Staff of the Forest Service during its first four years of existence and to pay tribute to the people of Dominica for their sound and quiet acceptance of an organization which has altered their way of life very considerably. Finally the late and the present Superintendent of Agriculture and their staffs are thanked for their co-operation and willingness to accept new branches - The Forest and Lands Offices - in their midst.

J.A.N. BURRA.

ASSISTANT CONSERVATOR OF FORESTS.

APPENDIX 1

ANNUAL RAINFALL RETURN DOMINICA 1952

STATION

TOTAL 1952
INCHES

(1927-52 inclusive)

Leeward Stations

Botanic Gardens	81.36
Bath Estate	74.97
Canefield	66.00
Colihaut	49.51
Clark Hall Estate	78.96
Experiment Station	85.45
Portsmouth Agricultural Station	105.54
Soufriere Estate	92.99

Inland Stations

Cocoa Station	78.71
Castleton	170.27
Riversdale	198.35

Windward Stations

Grandbay Agricultural Station	118.02
Delices	138.16
La Plaine Agricultural Station	134.24
Londonderry " "	60.58
Pte. Mulatre	131.58
Stowe	126.49

Mean Rainfall for 17 Stations	105.35 inches
" " " 8 Leeward Stations	79.33 "
" " " 3 Inland Stations	149.11 "
" " " 6 Windward Stations	118.18 "

MEAN MONTHLY RAINFALL BOTANIC GARDENS

<u>Month</u>	<u>1952 Inches</u>	<u>25 Year Mean</u> <u>Inches</u>
January	1.85	5.54
February	1.59	3.15
March	1.38	2.99
April	4.25	2.73
May	4.31	4.08
June	9.66	8.23
July	13.19	10.81
August	9.83	9.75
September	16.25	8.88
October	8.04	7.55
November	9.10	9.94
December	<u>1.91</u>	<u>6.30</u>
	81.36	79.95

CORRECTED AND REDUCED 32°F M.S.L.

Relative Humidity

ALVY.

HIGHEST BAROMETER READING		30.98 inches on 15th July
LOWEST "		29.82 inches on 25th August
HIGHEST MAXIMUM TEMP.		91° F on 2nd October
LOWEST MINIMUM "		67° F on 26th January and 27th February
GREATEST RAINFALL IN 24 HOURS		4.27 inches on 11th September.

APPENDIX III
D O M I N I C A

PRINCIPAL EXPORTS AND THEIR DESTINATION.

1952

S.I.T.C. Group No.	Commodities & Countries of Destination	unit of Quantity	Quantity	Value (¢)
026	Honey - Total	lbs.	<u>12,468</u>	<u>2,087</u>
	To: United Kingdom	"	9,759	1,645
	Barbados	"	2,709	442
051	Oranges - Total	brls.	<u>2,475</u>	<u>20,757</u>
	To: Barbados	"	1,515	10,537
	Bermuda	"	447	6,222
	Leeward Islands	"	417	3,108
	Other Countries	"	97	890
	Tangerines & Mandarines - Total	brls.	<u>255</u>	<u>1,942</u>
	To: Barbados	"	203	1,215
	Bermuda	"	52	666
	Antigua	"	10	61
	Grapefruits - Total	brls.	<u>5,597</u>	<u>31,316</u>
	To: Barbados	"	2,698	11,162
	United Kingdom	"	2,032	14,820
	Bermuda	"	129	1,644
	Leeward Islands	"	687	3,404
	Other Countries	"	51	305
	Green Limes - Total	brls.	<u>459</u>	<u>8,066</u>
	To: Bermuda	"	264	5,735
	Barbados	"	121	1,266
	Canada	"	21	430
	Leeward Islands	"	23	238
	Martinique	"	20	206
	Other Countries	"	10	192
	Lemons - Total	brls.	<u>511</u>	<u>3,329</u>
	To: United Kingdom	"	433	2,501
	Montserrat	"	74	805
	Bermuda	"	4	23
	Bananas - Total	Bunches	<u>856, 856</u>	<u>1,073,426</u>
	To: United Kingdom	"	801,778	1,065,845
	Leeward Islands	"	4,127	6,261
	St. Croix	"	500	540
	St. Eustatius	"	500	540
	St. Martin	"	222	240
	Avocado Pears - Total	T/Crates	<u>12,618</u>	<u>33,574</u>
	To: Bermuda	"	6,693	21,724
	Barbados	"	5,339	10,679
	Leeward Islands	"	512	1,034
	Other Countries	"	69	138
	Mangoes - Total	brls.	<u>3,117</u>	<u>34,493</u>
	To: Bermuda	"	1,074	14,417
	Barbados	"	1,104	10,689

C.	Commodities & Countries of Destination	Unit of Quantity	Quantity	Value (\$)
	Leeward Islands	brls.	835	8,353
	St. Martin	"	90	900
	Trinidad	"	14	135
	Coconuts - Total	No.	<u>157,975</u>	<u>7,756</u>
To:	Barbados	"	86,404	4,253
	Leeward Islands	"	58,921	2,893
	Bermuda	"	6,750	324
	St. Martin	"	5,900	286
	Pickled Limes - Total	casks	<u>2,185</u>	<u>23,998</u>
To:	United Kingdom	"	2,135	21,960
	U.S. America	"	50	2,038
	Canned Bananas - Total	lbs.	<u>183,199</u>	<u>58,361</u>
To:	United Kingdom	"	182,959	58,280
	Other Countries	"	240	81
	Preserved Fruits, whole or in pieces - Total	lbs.	<u>12,626</u>	<u>2,831</u>
To:	United Kingdom	"	9,443	2,460
	U.S. America	"	3,018	318
	Curacao	"	165	53
	Pomace of Dried Lime Skin - Total	lbs.	<u>159,061</u>	<u>1,691</u>
To:	United Kingdom	"	159,061	1,691
	Fruit peel, parts of plants drained glazed or crystallised - Total	"	<u>24,506</u>	<u>5,528</u>
To:	United Kingdom	"	17,290	3,315
	Barbados	"	4,112	1,388
	Trinidad	"	2,260	516
	Windward Islands	"	520	189
	Leeward Islands	"	324	119
	Jams, Jellies & Marmalades - Total	"	<u>53,328</u>	<u>12,385</u>
To:	United Kingdom	"	52,523	12,045
	Barbados	"	584	256
	Other Countries	"	221	84
	Jams, Jellies Marmalades fruit pulps and pastes - Total	lbs.	<u>27,444</u>	<u>6,852</u>
To:	United Kingdom	"	27,234	6,807
	Other Countries	"	210	45
	Lime Juice Raw, Clear, Clarified, Filtered, racked and settled - Total	gals.	<u>273,689</u>	<u>322,147</u>
To:	United Kingdom	"	201,149	211,742
	Australia	"	21,689	28,507
	U.S. America	"	17,299	28,944
	South Africa	"	14,319	22,408
	Canada	"	6,036	10,493

S.I.T.C. Group No.	Commodities & Countries of Destination	Unit of Quantity	Quantity	Value (\$)
	New Zealand	gals.	4,483	6,887
	British East Africa	"	2,877	4,623
	Republic of Ireland	"	1,635	2,424
	Barbados	"	1,828	2,221
	Singapore	"	1,039	1,662
	Germany	"	1,000	1,768
	Bermuda	"	202	279
	St. Kitts	"	133	189
Top Pulp Lime Juice - Total		gals.	<u>511,687</u>	<u>762,538</u>
	To: United Kingdom	"	503,014	742,509
	Canada	"	8,264	19,147
	U.S. America	"	409	882
Orange Juice - Total		"	<u>17,506</u>	<u>36,786</u>
	To: United Kingdom	"	17,506	36,786
Grapefruit Juice - Total		gals.	<u>24,877</u>	<u>37,655</u>
	To: United Kingdom	"	24,847	37,604
	St. Lucia	"	30	51
Sweetened Lime Juice - Total		gals.	<u>148,095</u>	<u>128,037</u>
	To: United Kingdom	"	148,084	127,993
	St. Kitts	"	11	44
	Citrus Flavoured Syrup - Total	"	<u>152,143</u>	<u>246,584</u>
	To: United Kingdom	"	152,143	246,584
054 Farine - Total		lbs.	<u>14,697</u>	<u>1,708</u>
	To: Bermuda	"	14,672	1,704
	Curacao	"	25	4
Vegetables chiefly for human food - Total		"	<u>25,184</u>	<u>2,637</u>
	To: Barbados	"	15,414	1,079
	Bermuda	"	7,876	1,425
	Leeward Islands	"	1,794	126
	Curacao	"	100	7
061 Lime Syrup - Total		gals	<u>357,751</u>	<u>180,904</u>
	To: United Kingdom	"	357,751	180,904
	Canned Honey flavoured) syrup - Total	gals. lbs.	<u>651</u> <u>9,291</u>	<u>1,463</u>
	To: United Kingdom	gals. lbs.	651 9,299	1,463
	Syrup and Molasses, Edible - Total	gals.	<u>265,061</u>	<u>171,151</u>
	To: United Kingdom	"	265,061	171,151
002 Cocoa Beans - Total		lbs.	<u>405,134</u>	<u>173,689</u>
	To: U.S. America	"	374,545	160,663

S.I.T.C. Group No.	Commodities & Countries of Destination	Unit of Quantity	Quantity	Value (\$)
	Holland	lbs	30,000	12,764
	Barbados	"	340	157
	Leeward Islands	"	224	90
	St. Martin	"	25	10
071	Coffee - Total	"	<u>10,281</u>	<u>6,713</u>
	To: Holland	"	5,600	4,378
	U.S. America	"	2,550	1,011
	St. Eustatius	"	1,190	857
	Barbados	"	900	451
	Antigua	"	41	16
075	Vanilla Beans - Total	lbs.	<u>30,366</u>	<u>118,538</u>
	To: U.S. America	"	28,710	111,847
	United Kingdom	"	905	3,991
	Canada	"	525	1,737
	Trinidad	"	200	881
	Barbados	"	26	82
112	Cigars - Total	lbs.	<u>2,345</u>	<u>11,860</u>
	To: Bermuda	"	1,446	6,792
	Barbados	"	258	1,439
	Windward Islands	"	163	987
	Trinidad	"	140	772
	Antigua	"	99	531
	Switzerland	"	67	473
	British Honduras	"	84	370
	Other Countries	"	90	496
211	Hides and Skins - Total)	No.	503	<u>1,998</u>
	)	lbs.	<u>2,997</u>	
	To: Greece	No.	72	774
		lbs.	21 50	
	U.S. America	No.	431	1,224
		lbs.	1,447	
221	Copra - Total	lbs.	<u>1,754,220</u>	<u>230,345</u>
	To: Barbados	"	1,754,220	230,345
241	Firewood - Total	cords	<u>308</u>	<u>2,464</u>
	To: Barbados	"	308	2,464
284	Scrap Copper - Total	lbs.	<u>10,746</u>	<u>4,125</u>
	To: Spain	"	9,714	3,806
	United Kingdom	"	1,032	319
292	Plants and Cuttings - Total	No.	<u>11,226</u>	<u>1,860</u>
412	To: Trinidad	"	10,360	1,658
	Windward Islands	"	347	99
	Other Countries	"	519	103
412	Coconut Oil - Total	gals.	<u>9,174</u>	<u>21,084</u>
	To: Barbados	"	9,174	21,084
551	Essential Oils - Bay Oil			
	- Total	lbs.	<u>27,603</u>	<u>50,431</u>
	To: U.S. America	"	23,349	41,193

S.I.T.C. Group No.	Commodities & Countries of Destination	Unit of Quantity	Quantity	Value (\$)
	United Kingdom	lbs	2,658	5,490
	Guadeloupe	"	480	1,293
	Barbados	"	360	743
	Trinidad	"	384	931
	Other Countries	"	372	782
	Ecuelled Lime Oil - Total	lbs.	<u>1,573</u>	<u>31,424</u>
	To: United Kingdom	"	<u>1,573</u>	<u>31,424</u>
	Distilled Lime Oil - Total	lbs.	18,893	211,951
	To: Australia	"	5,806	84,856
	United Kingdom	"	9,675	77,451
	U.S. America	"	2,050	33,252
	Canada	"	1,012	12,858
	New Zealand	"	350	5,535
	Grapefruit Oil - Total	lbs.	<u>307</u>	<u>1,379</u>
	To: United Kingdom	"	251	1,105
	Australia	"	56	274
657	Carpets, Carpeting, Floor rugs mats of vegetable plate materials - Total	sq.feet.	<u>36,771</u>	<u>17,106</u>
	To: Barbados	" "	12,030	6,622
	Trinidad	" "	7,371	2,756
	Leeward Islands	" "	7,048	2,870
	British Guiana	" "	2,220	999
	Bermuda	" "	1,394	522
	Canada	" "	637	410
	Windward Islands	" "	1,012	466
	U.S. America	" "	3,228	1,601
657	Other Countries	" "	1,831	858
841	Hats etc. of all materials other than wood-felt and fur felt-Total	No.	<u>1,665</u>	<u>1,505</u>
	To: Barbados	"	1,344	1,094
	Grenada	"	115	159
	Leeward Islands	"	101	124
	Other Countries	"	95	129
899	Baskets and Basketware - Total	-	-	<u>1,352</u>
	To: Barbados	-	-	690
	Leeward Islands	-	-	233
	Canada	-	-	129
	Grenada	-	-	219
	Other Countries	-	-	80
	Straw Manufactures - Total	-	-	<u>5,160</u>
	To: Barbados	-	-	2,457
	Trinidad	-	-	1,402
	Canada	-	-	791
	United Kingdom	-	-	149
	Leeward Islands	-	-	206
	Other Countries	-	-	154
911	Parcels Post not classified according to kind - Total	-	-	<u>2,742</u>
	To: United Kingdom	-	-	711
	U.S. America	-	-	700
	Barbados	-	-	508

S.I.T.C. Group No.	Commodities & Countries of Destination	Unit of Quantity	Quantity	Value (\$)
	Leeward Islands		-	237
	Trinidad		-	159
	Canada		-	90
	Poland		-	72
	Bermuda		-	46
	Switzerland		-	46
	Windward Islands		-	68
	Other Countries		-	105

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DEPARTMENT OF AGRICULTURE & FORESTRY

DOMINICA

AGRICULTURE AND FORESTRY STAFF

(as at 31st December 1952)

Superintendent of Agriculture and Chief Forest Officer	St. G.C. Cooper A.I.C.T.A. Dip. Agric. (I.C.T.A.)
Assistant Superintendent of Agriculture:	H.A.L. Francis Dip. Agric. (I.C.T.A.)
Agricultural Assistant	S.O. Pringle Dip. Agric. (Jam. Farm School)
Agricultural Assistant.	J. Talma Dip. Agric. (Mc Gill)
Agricultural Assistant.	Vacant
Livestock Officer,	P.H. Prince Dip. Agric. (Jam. Farm School)
Cocoa Assistant.	H.C. Burton
Agricultural Instructor Grade 1.	A.C. Winston
" " "	R.P. Lander
Agricultural Instructor Grade 11	C.A. Winston
" " "	E.S. Lancaster
" " "	J.A. John
" " "	F.P. Carbon
" " "	J.B. Colaie
" " "	Vacant
Agricultural Instructor Grade 111	L.M. Christian
" " "	S.P. Cuffy
" " "	S.F. Rodney
" " "	R.J. Cuffy
" " "	E. Jones
" " "	A. Guye
" " "	A.E. Samuel
" " "	W.G. Coipel
Foreman, Cocoa Station.	A. Defoe
Overseer, Lime Experiment Station.	G. Casimir
11 Special Soil Conservation Instructors	

CLERICAL STAFF

Senior Clerk (1st Class Clerk). . . L.A. Giraud
2nd Class Clerk. C.E. Butler
3rd Class Clerk. (Miss) J G Nicholls
3rd Class Clerk , (Mrs.) M.A. Roberts

FORESTRY DIVISION

Assistant Conservator of Forests. . J.A.N. Burra B.Sc. (Elin)
Forest Supervisor . C.G. Hill (On leave)

SURVEYORS

. L.H. Ifill
. A.P. Crawford
Forest Ranger. R.E. James
" " A.C. Dalrymple
" " P.E. Hall
" " T.E. Desbrosses
Forest Guards. H.C. Joseph
" " E. Baptiste
" " F. Tonge
" " H. Emanuel
" " G. Greenaway
" " S. Matthew
" " P. Bobb
" " B. William
" " C.R. Julien

CLERICAL STAFF

2nd Class Clerk C.A. Severin
3rd Class Clerk (Miss) M. Younis
Clerical Assistant (Miss) A. Fortune

ADMINISTRATION REPORT
OF THE
DEPARTMENT OF AGRICULTURE & FORESTRY
1952

INTRODUCTION

The staffing situation improved greatly during the year and enabled progress to be made in implementing agricultural policy. The vacant posts of Assistant Superintendent of Agriculture and Agricultural Assistant were filled. The additional post of Agricultural Assistant was left vacant for an officer taking a post graduate course at the Imperial College of Tropical Agriculture.

2. The outstanding features of the agricultural year were favourable weather good crop yields and high commodity prices. The development of a Central Livestock Farm commenced late in the year and good progress was made by year's end. Credit facilities were made available for the development of the expanding banana industry, and additional inexpensive propagators were constructed for the multiplication of clonal cocoa. It is estimated that nearly 1,000 acres were planted to new coconut cultivations. The food supply position adversely affected as it was by a developing export economy was reviewed by a Food Production Committee and several recommendations were made with a view to a more balanced development of the colony's agriculture. The Lime Industry continued to be the mainstay of the colony the volume of limes and its derived products forming nearly 41% of the total value of the colony's exports, followed by Bananas with 27%, the latter largely replacing the position occupied by spices in 1945.

AGRICULTURAL POLICY

The policy statement for agriculture is formulated under six main heads and every attempt is being made to implement it within the limits of the trained staff and funds available.

The main features of agricultural policy are listed below:-

- (i) The Conservation of the Agricultural and Forest Resources;
- (ii) The maintenance, expansion and improvement of the Colony's main export crops;
- (iii) The organization and improvement of peasant agriculture;
- (iv) The adequate provision of food for the people;
- (v) Greater efficiency in production, processing and distribution;
- (vi) Improvements in forms of Land Tenure.

PART 1

AGRICULTURE IN THE COLONY
METEOROLOGICAL CONDITIONS

The mean rainfall from data obtained from seventeen Stations was 105.35 inches distributed as follows:-

8 Leeward Stations	79.33 inches
3 Inland Stations	149.11 "
6 Windward Stations	118.18 "

At the Botanic Gardens the total rainfall was 81.36 being 1.41 inches above the last 25 year average. The distribution was very uneven, approximately 75% of the total rainfall being concentrated.

in the six months of June to November inclusive. The highest total rainfall occurred in September with 16.25 inches, followed by July with a fall of 13.19 inches. The highest fall on any one day was 4.27 inches on the 11th September.

The mean absolute maximum temperature for the year was 89° and the mean minimum 71°.

The mean pressure for the year was 29.93 inches

The mean relative humidity was 70.5% with a mean range of 75% at 9 a.m. and 66% at 3 p.m.

CONDITIONS AND PROGRESS IN THE MAJOR INDUSTRIES

The total value of the colony's domestic exports was \$4,192,728 as compared with \$2,648,377 during the previous year - an increase of 53.7%. Except for fresh citrus fruits, this increase was attributed to a further rise in the volume and value of the principal export crops of the colony viz. Fruit Juices, Bananas, Essential Oils, Copra, Cocoa and Vanilla.

The Table of exports and their destination is published as an Appendix to this report.

The conditions obtaining in the major industries of the Colony are briefly dealt with below.

THE LIME INDUSTRY

The demand for lime juice and lime oils remained high during the year and was accompanied by a high price level. Production of limes after conversion, totalled 144,016 barrels, as compared with 97,706 barrels for the previous year. Good weather and a rise in the standard of cultivation contributed to this increase although, as has often been represented the figures for any given year do not necessarily reflect actual production as there may be a carry over at the end of the calendar year; nor is the very considerable local consumption reflected in the export figures.

The 1952 figure however represents a 37.6% rise in production over the last eight year average of 104,600 barrels and the value of limes and its derived products now constitute 41% of the total value of the colony's exports.

A significant change in the pattern of lime exports has been the decline in the exports of green limes, particularly to Canada, which up to four years ago was a relatively large consumer market. This is probably due to the high prevailing prices for lime juice and lime oils in recent years and the fact that local exporters were not prepared to ship on a consignment basis.

The Eleventh Annual Meeting of the West Indian Limes Association, Inc. Trinidad (W.I.L.A.) was held in the colony in October, and took important decisions designed to promote and protect the West Indian Lime Industry. In particular, it was felt that the Canadian Market should be more fully exploited in the use of limes in the soft drinks trade as well as for culinary purposes.

Agriculturally, the standard of lime cultivation in the island was very high and future policy should be directed to promoting maximum yields per acre by carefully conducted manurial, cultivation, and rootstock trials, since withertip had severely limited the area on which limes could be expanded.

The Lime Industry has been built up on an empirical basis, and although very valuable observations have been made, the time has arrived for a thorough agricultural and economic survey of the industry with a view to pin pointing the problems which require elucidation. Yields per acre vary from 200 to 15 barrels and the performance of rootstocks vary widely in the differing climatic zones in which limes are grown.

In recent years, Wild Grapefruit (of which there appears to be two varieties locally) has been favoured as a stock as it appears to be congenial with limes and enjoys a higher degree of resistance to scab and gummosis. There is a local preference however for "Sweet Seville" stocks in the low rainfall areas. A wide range of stocks has been imported for further trials and observations.

CITRUS

Weather conditions were again unfavourable to the citrus crop, and this, coupled with the lack of shipping, led to a significant decline in the export of fresh fruit 3,000 lbs being exported as compared with 18,000 lbs in the previous year.

The local cannery however continued to provide an outlet for the fruit and as a result the decline in fresh fruit was offset by its conversion to processed juice.

BANANAS

The banana industry continued its upward climb with a total production for export of 856,856 stems compared with 576,770 stems for the previous year or an increase of approximately 49%. The overall island weight per stem was 26.23 lbs. as compared with 29.35 lbs. per stem in 1951. A significant feature of the industry has been the rise in the proportion of fruit produced by small holdings, which rose from 58.36% of the total in 1951 to 65.16% in 1952.

The industry constitutes 27% of the total value of the Colony's exports and its value is considerably enhanced by the canning industry, although there was a significant decline in the export of canned bananas owing to market conditions during the year.

Failure of the year's crop to reach the million mark can be ascribed to poor internal communications, inadequate cultivation, and irregular shipping opportunities in the past. The position was regularised during the year when the Contracting Company provided two 16½ Knot Banana Ships to service the industry fortnightly from May 1952.

In the 1951 Annual Report, attention was drawn to the factors likely to limit any further rapid expansion of the industry. As these factors become gradually eliminated it is felt that the industry may reach its potential of at least 2 million stems.

On the cultural side, a great deal remains to be done, particularly in suckering and spraying for Leaf Spot control. There has been a most encouraging increase in the use of fertilisers although the manurial requirements of the crop still remain to be elucidated. Moko disease, once recorded, appears to be entirely absent, but Banana Borer and Stalk Rot, the latter arising during the course of shipping, are problems still to be overcome.

The Growth of the industry over the last five years is reflected in the table below:-

Year	No. of Stems Exported	Value
1948	14,731	\$14,142.00
1949	120,676	\$141,474.00
1950	349,675	\$557,999.00
1951	576,770	\$720,527.00
1952	856,856	\$1,073,426.00

COCONUTS

Exports of copra increased from 668 tons in 1951 to 783 tons in 1952. The Colony's potential in copra manufacture is about 1,000 tons, but there is a considerable trade in the exports of raw nuts and coconut oil to Barbados and the Leeward Islands.

In recent years, it is estimated that over 1,000 new acres have been put down to Coconut cultivation, particularly in the Northern District and in the South and this should reflect favourably on copra exports in the next few years.

Yields per acre of coconuts in Dominica are relatively very high, being approximately over 4,000 nuts per acre. There are no serious insect pests or diseases.

VANILLA

Contrary to expectation Vanilla exports increased in volume and value during the year. 30,000 lbs. of cured beans were exported as compared with 19,000 lbs. in 1951. at an average value per lb. of \$3.90. Closer vigilance of inspection ensured that only good quality beans were exported.

The vanilla market, like the other luxury crops of the colony is an uncertain and speculative one. Production figures can often represent carry over stocks held by dealers to take advantage of a rising market.

COCOA

Exports of cocoa rose from 136 tons in 1951 to 202 tons in 1952. The full effect of the clonal cuttings distributed in the last four years will not be felt for sometime, but it can be confidently anticipated that there will be a progressive rise in the exports of this crop. The crop prospects are discussed more fully later on in this report.

COFFEE

Exports of coffee during the year dropped below the 1951 level, 10,281 lbs. being exported as compared with 12,458 lbs. in 1951. There has been no serious expansion of coffee within the last 50 years but there have been sporadic plantings within the last few years. Root diseases in Liberian coffee has been serious, particularly in the Windward belt, which is the main coffee growing area. Departmental policy aims at widening the scope of the already heavy plant propagation programme to include coffee for distribution

RUM

Most of the Rum produced is used locally and production in 1952 was 56,977 gallons, as compared with 72,735 gallons in 1951.

FOOD PRODUCTION

The Food Production Campaign which began in 1951 resulted in an improved situation during the course of the year, resulting even in a small exportable surplus of Farine and vegetables to neighbouring islands.

A Food Production Committee appointed during the year made a thorough enquiry into the food situation and submitted several short and long term proposals designed to encourage the production of local foodstuffs.

Commencing in May, weekly checks were made on retail prices paid for the more common foodstuffs on sale in the Roseau Market and the following figures show the average price paid:-

<u>ITEMS</u>	<u>AVERAGE RETAIL PRICES</u>
Dasheen	17¢ per lb.
Tannias.. . . .	16¢ per lb.
Yams...	25¢ per lb.
Sweet Potatoes...	13¢ per lb.
Cabbages...	16¢ per lb.
Tomatoes.. . . .	48¢ per lb.

ITEMS

AVERAGE RETAIL PRICES

Carrots...	39¢ per lb.
Lettuce.....	6¢ per head
Cucumbers.....	10¢ each
Bananas (green) 24¢ per hand,	\$1.76¢ per bunch (6-7 hands)

Cabbages, lettuce Egg Plant and Cucumbers were unobtainable during June and early July but gradually became available towards the end of the year.

AGRICULTURAL CREDIT

During the year a Credit Scheme was formulated by a Committee under the Chairmanship of the Agricultural Superintendent. The primary object of the scheme was to make cash advances to banana growers on a Crop Advance Warrant, but it was held that other crops of the farmer would benefit as bananas were largely interplanted.

An Agricultural Loans Board was set up by Government to administer the loans, and the machinery for their recovery put into operation.

The rate of interest charged was $5\frac{1}{2}\%$ and the Banana Growers Association, in order to assist their members, agreed to meet $\frac{1}{2}\%$ from its funds, the grower thus meeting 5%.

PESTS AND DISEASES

The major pests and diseases of the Colony are Citrus weevil, Fruit-piercing moths, Birds, Scale insects, Banana Borer, Sugar Cane Borer, Scarabee Weevil, and Banana Leaf Spot Disease.

Rat damage was reported to be on the increase especially in food crops to the extent of discouraging peasants from planting food crops. Limited quantities of the yet untried rodenticide "Warfarin" were made available to farmers and it was planned to make larger quantities available in 1953.

Citrus root grub caused an estimated 3 to 5 per cent loss of young stocks in nurseries. Affected areas were treated with "Aldrin" with promising results.

The incidence of Banana Leaf Spot disease was high during the year owing to inadequate Spraying and improper field sanitation. These measures when properly applied held the disease in check to a large extent. Many growers are yet to be educated in the advantages of Spraying.

A Scheme for the biological control of the major pests of the Colony was submitted and it is hoped to start work in 1953.

Liberation of the parasites *Lixophaga diatraeae*, *Leionota quadridentata*, *Paratharsis claripalpis* and *Plaesus javanus* made in 1951 have in some cases established themselves successfully but further checks remain to be made.

PART 11

WORK OF THE DEPARTMENT

ADMINISTRATION

Although good progress was made in the work of the Department during the year, it was handicapped by the absence on leave of a number of senior and junior officers.

EXTENSION SERVICES

The following services were undertaken by the Department's Extension Division during the year:-

- (i) General advice to planters on agriculture
- (ii) Soil Conservation; Crown Land Inspection for agricultural use;
- (iii) Plant Propagation and Distribution;
- (iv) Supervision and Management of the Botanic Gardens, 5 District Agricultural Stations 3 Cacao Propagating Units a Livestock Farm a Lime Experiment Station, a Trust Estate and the supervision of a Government owned estate;
- (v) Implementing Agricultural Legislation;
- (vi) Produce Inspection, Crop Surveys Crop Valuations.

ADVISORY WORK

There was an increasing demand both by Estates and Peasants for advisory services coupled with a keen desire on their part to participate in schemes launched by the Department. The available staff could not cope with the demands for these services. Special emphasis was placed upon Soil Conservation and upon a "Grow More Food" Campaign. During the year the Field Staff paid 574 visits to Estates and 3,171 visits to Peasants. More details on extension work follow the paragraph on Botanic Gardens below.

BOTANIC GARDENS

The ornamental section of the Gardens was well maintained as well as the five public parks.

Two Talipot Palms and several bamboo clumps flowered and died down during the year.

In the Economic Section, the propagation of Cacao, Black Pepper, Coffee, Coconuts, Mangoes and Avocado Pears was undertaken. The number of plants raised from all stations is shown under the Head "Plant Propagation and Distribution".

SOIL CONSERVATION

Under the provisions of C.D. & W. Scheme 1743, nine Soil Conservation Instructors were appointed during the year bringing the total number of these officers to 14. Although attached primarily to the Forest Division these officers worked in collaboration with the normal field staff of the Department in an endeavour to arrest shifting cultivation on Crown Lands by locating the Squatters and encouraging them to apply for and to purchase lands.

Incentives in the form of cash payments were made available to small farmers to assist them in defraying a part of the cost of establishing anti-erosion works on their holdings. The system is due to be expanded in the coming year. Response was encouraging but farmers who were able to take independent remedial action did not receive financial assistance. The operation of the incentive system was facilitated by the Squatter Control Scheme, opportunity being taken to establish anti-erosion works simultaneously with anchoring squatters on the land. The development of a sound peasant agriculture will be largely determined by the final measure

of success achieved in arresting shifting cultivation.

It cannot be claimed that the question of Soil Conservation is anywhere near solution nor can the correct approach to the task ever be determined in the absence of detailed field surveys. There is however, a growing consciousness of the problems and preventive measures are being constantly brought to use in the form of contour drains, storm drains, stone and vegetative barriers - simple measures considered to be well within the reach of any cultivator. During the year, conservation works established in the field totalled as follows:-

Grass Barriers	34,200 ft.
Stone Terraces.	11,843 ft.
Contour Drains.	74,540 ft.

A large proportion of these works was established in banana cultivations, and the total area affected is estimated at 400 acres.

PLANT PROPAGATION AND DISTRIBUTION

Production and distribution of economic plants received high priority in the activities of the field staff. As is customary, the lands of all applicants especially in the case of citrus and cocoa, were inspected prior to actual deliveries to ensure that adequate preparatory measures were adopted in the field. Reports on the performances of previous deliveries showed a satisfactory degree of success. The following plants were distributed from propagating centres.

West Indian Limes	16,400
Oranges	2,503
Grapefruit	704
Other Citrus (Citron Bergamot etc.)	1,308
Coffee	2,854
Avocado Pears	103
Dwarf Coconuts	930
Vegetable Seedlings	6,653
Vegetable Packets	11,724
Yams	4,920 lbs
Sweet Potatoes	94,499 Cuttings
Fodder Grass	46,801 "
Nutmegs	486
Banana	41
Black Pepper	116
Mangoes	10

5,499 rooted cocoa cuttings were distributed from the COCOA PROPAGATING UNIT at Hillsborough but nearly 17,000 plants were raised during the year.

SUPERVISION OF DISTRICT AGRICULTURAL STATIONS

Operation of 5 District Agricultural Stations continued. In addition to the routine functions of plant propagation and distribution coupled with the maintenance of stud animals strong emphasis was placed upon extending and planting all available areas to food-crops. This step was necessary as an attempt to emphasize and to offset up to a point, the local scarcity of food. Extension of banana cultivations at the expense of food gardens was felt to be the major cause of the food shortage. By way of demonstrations, banana plots inter-cropped with various food crops were laid down on these stations to illustrate that both food and cash crop (bananas) can be grown simultaneously, with a resultant increase in cash income. The demonstrations were copied by farmers in several districts.

A statement of revenue and expenditure on these Stations over the last 2 years is given below. The revenue figures do not accurately reflect total revenue since a considerable portion of this is credited to the local Head which bears part of the total expenditure.

The revenue derived from Scheme Funds is credited to the Scheme and was as follows:-

Station	1951		1952	
	Expend.	Revenue	Expend.	Revenue
Londonderry	\$6903.30	\$220.37	\$5072.36	\$731.45
Grandbay	6057.73	678.15	5861.56	417.71
Portsmouth	3966.58	96.03	3165.55	370.56
Colihaut	2618.30	253.59	2150.96	122.22
La Plaine	3403.09	45.99	3233.62	141.69

Apart from the above figures, revenue collected from the overall sale of plants was \$2,932.

The general standard of cultivation on husbandry on the stations was kept at a sufficiently high level to serve as models and demonstrations to farmers in the respective areas. The public continued to show interest in the activities of the stations

OTHER ACTIVITIES BANANA INDUSTRY

Officers gave all possible assistance in the field with matters concerning the Banana Industry as a whole. The following aspects received attention:-

- Inspection of holdings of persons applying for loans with the Banana Loans Scheme;
- Assisting Field Staff of the Leaf Spot Control Board in applying measures for the control of Leaf Spot Disease;
- Serving as arbitrators in disputes arising at Banana buying stations;
- Giving general advice to banana growers to stimulate production;

BANANA DEMONSTRATION HOLDINGS

A Scheme jointly financed by Government, Messrs. Antilles Products Limited and the Dominica Banana Association allowed for the establishing on peasant's holdings of banana demonstration plots at strategically located sites. The Scheme came into operation in July and is operated on a self help basis, the grower providing his labour, and assistance is generally given in kind eg. fertilizers. Thirteen sites were selected and preliminary works established towards the end of the year

AGRICULTURAL TRAINING SCHEME

Sixteen pupils were on roll during the year. Due to an insufficiency of senior staff personnel to undertake the thorough training of these young men, the pupils were distributed between the Botanic Gardens and District Agricultural Stations where they were occupied on practical projects with special emphasis on citrus propagation and nursery work. A revised scheme of training was drawn up to commence in 1953. Several of the pupils released in previous years found temporary employment in the Department as Junior Field Assistants.

GROUP MEETINGS

Although there exists an insufficiency of community organizations in the districts, through which medium extension officers could more readily approach farmers on the group basis, available opportunity was taken to hold meetings and speak to farmers on matters pertaining to agriculture.

During the year 25 such meetings were organized in various districts as follows:-

Roseau	2
Colihaut	4
Eggleston & Giraudel	2
La Plaine	8
Soufriere	4
Grandbay	2
Marigot	1
Portsmouth	1
Wesley	1

A film on Soil Conservation was shown free to the public at a meeting in Roseau.

The following district-cooperative bodies which operate independently of the Department of Agriculture are on record as having functioned during the year.

Credit Union	-	Portsmouth
Farmers Agricultural Union	-	Northern District
St. Luke's Cooperative Line	-	
Factory	-	Pointe Michel
St. Mark's Cooperative Line	-	
Factory	-	Soufriere
3 - F Club	-	La Plaine

An Agricultural and Industrial Exhibition sponsored by the Education Department was held at Portsmouth in July. The opportunity was then taken to organise a school garden competition. Ten schools entered gardens in the competition and a fair standard of development was exhibited. Prizes were awarded on a point system and the winning garden secured 65% of the total available number of points.

Weekly articles of Agricultural and tropical interest were published in the local press to serve as simple practical guides to farmers.

INVESTIGATIONAL WORK

The absence of trained Senior Officers of the Department resulted in a prolonged lapse of investigational work. A programme of Experimental Investigations was drawn up in May with the object of conducting a series of short term trials and observations with various crops and measuring crop responses due to the influence of the following factors:-

- (a) Manurial
- (b) Cultural
- (c) Seasonal
- (d) Soil Types
- (e) Varietal

During the year the following 6 trials and observations were initiated:-

(1) Banana Manurial Observation No. 1 - Goodwill

Objective: To observe differences in the response of Lacatan Banana to dressings of Nitrogen, Phosphate and Potash when each fertilizer is supplied singly, combined in turn with the other two and when all three fertilizers are present. Single rates of application only were employed.

Layout: The observation was laid down in a field already planted with bananas at different spacing intervals interplanted with limes for which reason a proper statistical layout was not feasible.

Treatments: Treatments were restricted to plots comprised of rows of ten plants each. Two replications were employed. Rates of application were as follows:-

Nitrogen as Sulphate of Ammonia	1 lb. per plant
Phosphate as Superphosphate	1 lb. per plant
Potash as Muriate of Potash	1 lb. per plant

No results were available at the end of the year under review.

(2) Banana Manurial Observation No. 11-Goodwill

Object: To observe differences in the response of Lacatan Banana to dressings of ready mixed fertilizers.

Treatments: Five fertilizer types and a control comprised the treatments. The fertilizers used were (10:8:4) (6:6:18) (6:12:6) (5:10:10) They represent the popular types of ready-mixed complete fertilizers imported locally by business houses and used widely throughout the island.

Rate of Application: All fertilizers were applied at the rate of $\frac{1}{2}$ lb. per stool. The number of plants per treatment varied from 6 to 10.

(3) Elephant Grass Manurial Trial - Grandbay Agric. Station

Object: To determine the response of Elephant Grass to dressings of Nitrogen. Phosphate and Potash when each ingredient is supplied at 3 incremental levels. alone, and in all possible combinations with the other two.

Design: A 3x3x3 factorial design comprised of 3 blocks of 9 plots each. Plot size - 380 sq. ft.

Rates of Application: Nitrogen (Sulphate of Ammonia) and Phosphate (Superphosphate) -

Control	No manure
Single Dressing	200 lbs per acre
Double Dressing	400 lbs per acre

Muriate of Potash

Control	No Manure
Single Dressing	150 lbs per acre
Double Dressing	300 lbs per acre

Procedure:- Cuttings were planted in furrows 3 ft apart and guard rows left between plots. It was planned to conduct the trials over a period of 1 year reaping at 8 weekly intervals. The first reaping took place in July. Four reapings were accomplished by the end of the year. The findings obtained from such a short period of growth were not considered to be sufficiently indicative of final results especially with a crop of this nature. For this reason the data collected over this period was not analysed statistically. This must await a subsequent report. The following information which is considered useful was nevertheless extracted from the available data.

Overall Yields of Trial at Successive Reapings in tons per acre

1st Reaping	9th July	12.8
2nd Reaping	3rd September	10.9
3rd Reaping	22nd October	7.2
4th Reaping	24th December	4.4

The progressive decline in yield was outstanding. This could not be attributed to rainfall or seasonal effects but instead to a gradual decline in overall growth and vigour. Rainfall during the periods between reapings was as follows:-

From planting to 1st reaping	10.52 ins.
1st to 2nd	25.90 "
2nd to 3rd	26.76 "
3rd to 4th	19.47 "

Total yields up to the 4th reaping at the end of the year as influenced by the 3 fertilizers is set out below:-

Average Yields per plot in Tons per acre due to N.P & K.

	<u>Control</u>	<u>Single Dressing</u>	<u>Double Dressing</u>
Nitrogen	33.2	35.7	37.3
Phosphate	30.6	37.1	38.5
Potash	34.2	36.2	35.7

The highest yield response was obtained from Phosphate, followed by Nitrogen and Potash in that order thus:-

Linear Response to Phosphate	7.9 tons
" " " Nitrogen	4.1 "
" " " Potash	1.4 "

Although the overall yield response to Phosphate was very outstanding the difference in yield between the single and double level was not in proportion to warrant its application at the double rate. The overall response to Nitrogen was more proportional through the 3 incremental levels. Potash depressed yield at the double dressing.

(4) Sweet Potato Varietal Trial - Grandbay Agricultural Station

Object: To compare the performances of five sweet potato varieties, grown under similar conditions and to repeat plantings over the period of 1 year to assess the effects of season on yield.

Varieties B 44, Six weeks, Happy land, Fortunee, B 5.

Design: A 5 x 5 Latin Square Effective plot size - 140 sq. ft.

Procedure: Ridges were prepared 3 ft. apart and guard rows of 3' were left between all plots. Pen manure was incorporated at the rate of 10 tons per acre during preparation of the ridges. Planting took place on July 4th. The overall successful take of cuttings was 95% very little supplying was found to be necessary. The first reaping took place on November 4th and the area was replanted on November 25th.

Results: Average yields in tons per acre of the varieties tested were as follows:-

B 44	4.72
Six Weeks	4.25
Fortunee	4.15
Happy land	3.58
B 5	3.47

Differences in yield between varieties were not found to be significant. The trial continues.

(5) Sweet Potato Manurial Trials - Londonderry and Portsmouth Agricultural Stations:

Two identical manurial trials were laid down at Londonderry and Portsmouth with the object of assessing the yield of Sweet Potatoes when treated with Nitrogen Phosphate and Potash alone at 3 levels, and in all possible combinations.

Design: A 3x3x3 factorial design comprising 3 blocks of 9 plots per block.

Rates of Application: Single 2 cwt. per acre. Double 4 cwt. per acre for all manures. The manures used were Sulphate of Ammonia, Superphosphate and Muriate of Potash.

The trials were planted in September and reaped in February.

Results: Average yield of roots expressed in tons per acre due to the 3 fertilizers is stated below. Differences in yield for both trials were not significant.

LONDONDERRY

	<u>Control</u>	<u>Single</u>	<u>Double</u>
Nitrogen	3.1	3.4	1.9
Phosphate	2.9	2.9	2.6
Potash	2.5	2.1	3.8

PORTSMOUTH

		<u>Single</u>	<u>Double</u>
Nitrogen	2.9	3.4	3.0
Phosphate	3.0	3.3	3.0
Potash	3.3	3.0	3.0

The overall response to fertilizers was negligible except at Londonderry where Nitrogen had the tendency to depress yield at the double rate of dressing.

(6) A 3x3x3 factorial manurial trial was initiated with bananas at Londonderry Agricultural Station to compare the effects on yield of Nitrogen, Phosphate and Potash.

LIME EXPERIMENT STATION

A replanting programme was undertaken during the year, but no investigational work was undertaken due to lack of necessary personnel.

A relatively heavy crop was obtained due principally to favourable weather conditions.

The crop yields from an estimated 15 acres over the last five years are shown below:-

<u>YEAR</u>	<u>TOTAL YIELD (Barrels 160 lbs.)</u>
1948	912
1949	781
1950	500
1951	646
1952	1,273

COCOA PROPAGATION (C.D. & W. SCHEME D. 941)

There was a rise in the propagating efficiency of the Station during the year as a result of Mr. D.B. Murray's recommendations. In the nursery, the re-establishment of *Gliricidia maculata* as overhead shade was not as rapid as desired, as it proved difficult to establish in fully established cocoa. Castor oil seed was sown as it was found to be fairly rapid in growth and provided a fairly satisfactory degree of shade. It was also found necessary to establish secondary windbelts against the consistent breezes in this valley.

A severe attack of thrips tended to reduce the rooting percentage of cuttings during the year. A total of 17,000 cuttings were successfully raised during the year and this was supplemented by a subsidiary unit at the Botanic Gardens to the extent of 3,000 plants with an average rooting percentage of 84.

Propagation was made from a wide mixture of clones viz. D.S. 1, 2,3,5,9, G.S. 5,29,33, I.C.S. 1,8,39,40,45,46,48,84.

Additional funds were applied for during the year to effect improvements in the water supply and to convert the open propagators to closed types.

LIVESTOCK

The most important development in Livestock during the year was a grant of £18,765 from Colonial Development and Welfare Funds to establish a Central Livestock Farm on the former Goodwill Estate.

Work commenced very late in the year, but good progress had been made by year's end in the lay out of the Farm and the construction of a 20,000 gallon water Tank and pipe lines.

There were 220 stud services recorded from all Stud Stations in 1952 as compared with 121 in 1951.

Importation of stock during the year were as follows:-

Description	No.	Origin
British Alpine Buck	1	Barbados
British Alpine Buck Kids	3	St. Vincent
British Alpine Doe	1	Barbados
Saanen Does	3	Barbados
Wiltshire Horn Rams	2	Barbados
Black Belly Ram	1	St. Vincent
Grade Jersey Bull Calves	3	Grenada
Sahiwal Grade Bull	1	Trinidad
Berkshire Boars	8	British Guiana
Berkshire Gilts	2	British Guiana

Farmers are being persuaded to grow grass legume mixtures and to give better care and attention to their animals. Improved studs are given on loan to them and the system is working satisfactorily.

Every precaution was taken during the year to prevent the introduction of Foot and Mouth Disease from the neighbouring island of Martinique.

PLANT INTRODUCTIONS

The following introductions and some observations on them were made during the year:-

PLANT	ORIGIN	REMARKS
Pan American Tomato	U.S.A. Dept. Agric.	Promising
Sunray Tomato	"	Poor Quality
Southland Tomato	"	Promising
I.C. 2 Banana	I.C.T.A.	Fair
Pisang Radja	Costa Rica	Promising
Molasses Grass	I.C.T.A.	Excellent
Indigofera subulata	I.C.T.A.	Excellent
Indigofera Teysmanii	Ceylon Dept. Agric.	Very rapid grower
Cowpeas - Vars. African Red	I.C.T.A.)	Very Good
" No. 567	I.C.T.A.)	Susceptible to
" No. 486	I.C.T.A.)	Bird Attack
" No. 500	I.C.T.A.)	
Desmodium S.R. 463	I.C.T.A.	Excellent
S.R. 502	I.C.T.A.	
Pigeon Peas	Barbados Dept. Agric	Very Good quality
Sweet Potato B 5	Barbados Dept. Agric.	Early bearer
Egyptian Wheat	St. Kitts	Fair
Solanum hypochondrium	Costa Rica	Not promising
Desmodium ovalifolium	Costa Rica	Slow, promising as a cover crop
Desmodium gyroides	Costa Rica	Failed
Desmodium limense	Ceylon Dept. Agric.	Very Good
Chinagra vigna	Costa Rica (Turrialba)	Very promising
Phaseolus vulgaris	Costa Rica	Very promising

Onion Red Globe (India)	India	Failed
Sugar Cane B 4744	Barbados	Very Good
B 47419	Barbados	Very Good
Thornless mimosa	Ceylon Dept. Agric.	Good

STAFF: Shortage of staff was pronounced. The complement of extension Officers was as follows:- 2 Agricultural Assistants (1 appointed in February) 2 Grade 1 Instructors, 6 Grade 11 Instructors and 7 Grade 111 Instructors. An Agricultural Assistant was resident for the first time in the Eastern District.

The Agricultural Superintendent instituted the practice of holding staff meetings at Head Office, to give officers the opportunity of discussing together various problems encountered in their respective districts.

A full scale staff conference was held in July to review the work of the department for the first half of the year. This conference was opened by the Administrator who had recently arrived in the Colony. Twenty-six conferences were held during the year.

A Grade 11 Instructor was sent to Jamaica in December on a Social Welfare and Agricultural training course. It was arranged to let the officer study the workings of group activities of agriculturists.

The names of two officers were submitted to Government for future training at the Eastern Caribbean Farm Institute in Trinidad.

AGRICULTURAL LEGISLATION

STATUTORY RULES AND ORDERS 1952

- S.R & O. No. 10 - Forest Soil and Water Conservation
11 - Plant Protection (Importation Amendment) Regulation
13 - Banana (Amendment) Rules 1952 1952.
17 - Importation of Animals (Landing Order)
25 - Contagious Diseases
35 - Contagious Diseases
38 - Importation of Animals, Birds, Poultry, Reptiles, and Insect (Prohibition)

ORDINANCES 1952

- Ordinance No. 5 - An Ordinance further to amend the Banana Ordinance 1934
10 - An Ordinance further to amend the Banana Leaf Spot Ordinance 1951
15 - Livestock Ordinance to control the Importation of Animals Birds, reptiles etc. and the treatment of Diseased Animals.

Implementing Agricultural Legislation

With the outbreak of Foot and Mouth Disease in the neighbouring French Island of Martinique in November, all officers especially those stationed in coastal areas were constantly on the alert to prevent its introduction. Ports of entry were carefully observed and all incoming passengers and cargoes from the declared area were subjected to disinfection by officers who were detailed to board vessels and carry out disinfecting measures. No cases of the disease were reported locally.

MISCELLANEOUS

(i) The Agricultural Superintendent served on the following Committees during the year:-

- (i) Chairman, Leaf Spot Control Board.
- (ii) Chairman, Food Production Committee
- (iii) Chairman, Resettlement Committee for Ex-Servicemen
- (iv) Chairman Dominica Limes Association

- (v) Deputy Chairman Agricultural Loans Board
- (vi) Member, Dominica Banana Association
- (vii) Member Central Housing Authority
- (viii) Member Roads and Tracks Committee
- (ix) Chairman, Agricultural Advisory Committee

(ii) Visits to the Department during the year included:-

His Excellency the Governor Sir Robert Arundell K.C.M.G.;
The Earl of Athlone;
Her Royal Highness Princess Alice;
E.J. Downes - Superintendent Public Gardens, Jamaica;
R.S. Rack - Fisheries Adviser;
Professor Keeping - University of Alberta;
Sir Edmund Cunard;
Frank Wadsworth - Tropical Forest Station Puerto Rico;
A. deK Frampton C.M.G. - Agricultural Adviser C.D & W.;
Mr. D.B. Murray Plant Physiologist I.C.T.A.

(iii) Several useful volumes and periodicals were added to the Department's Library during the year.

ACKNOWLEDGMENTS

It is a pleasure for me to acknowledge the great assistance rendered by my staff, the Administrator, the Press and the planting community during the year.

REPORT ON GOVERNMENT OWNED ESTATE

GOODWILL ESTATE

Weather Conditions: Rainfall records were not kept but the following observations were made:

Crops were adversely affected by abnormally dry weather which lasted through the first quarter of the year, going well into the second. Occasional showers which punctuated this period of drought invariably preceded drying winds which tended only to accentuate unfavourable conditions. The dry spell was broken in June and but for a few downpours which caused some flooding and perceptible erosion, the rainfall may be said to have been well distributed and generally favourable during the remaining months of the year.

Policy as affecting Tenant Cultivators: Tenant Cultivators were seriously affected by major developments such as the establishment of the Central Stock Farm, Prison Construction and private industrial enterprises, all of which necessitated a number of evictions. The Stock Farm alone involved over seventy tenants evicted and paid Compensation to the tune of \$1,850.00 plus other concessions in lieu. Whenever it was found practicable, deserving tenants were established subject to the following conditions:-

- (a) That Soil Conservation be practiced;
- (b) At least one half of each holding be devoted to food crops;
- (c) Rent be paid as from January, 1953 at the rate of \$9.60 per acre per annum.

Sugar Cane Cultivation: Sugar Cane Cultivation was not encouraged for the following reasons:-

- (a) Lack of milling facilities - the estate mill having been out of operating order throughout the year;
- (b) The urgent need for increased areas under food crops;
- (c) Diminishing areas available to tenant cultivators with the attendant necessity for better land use;

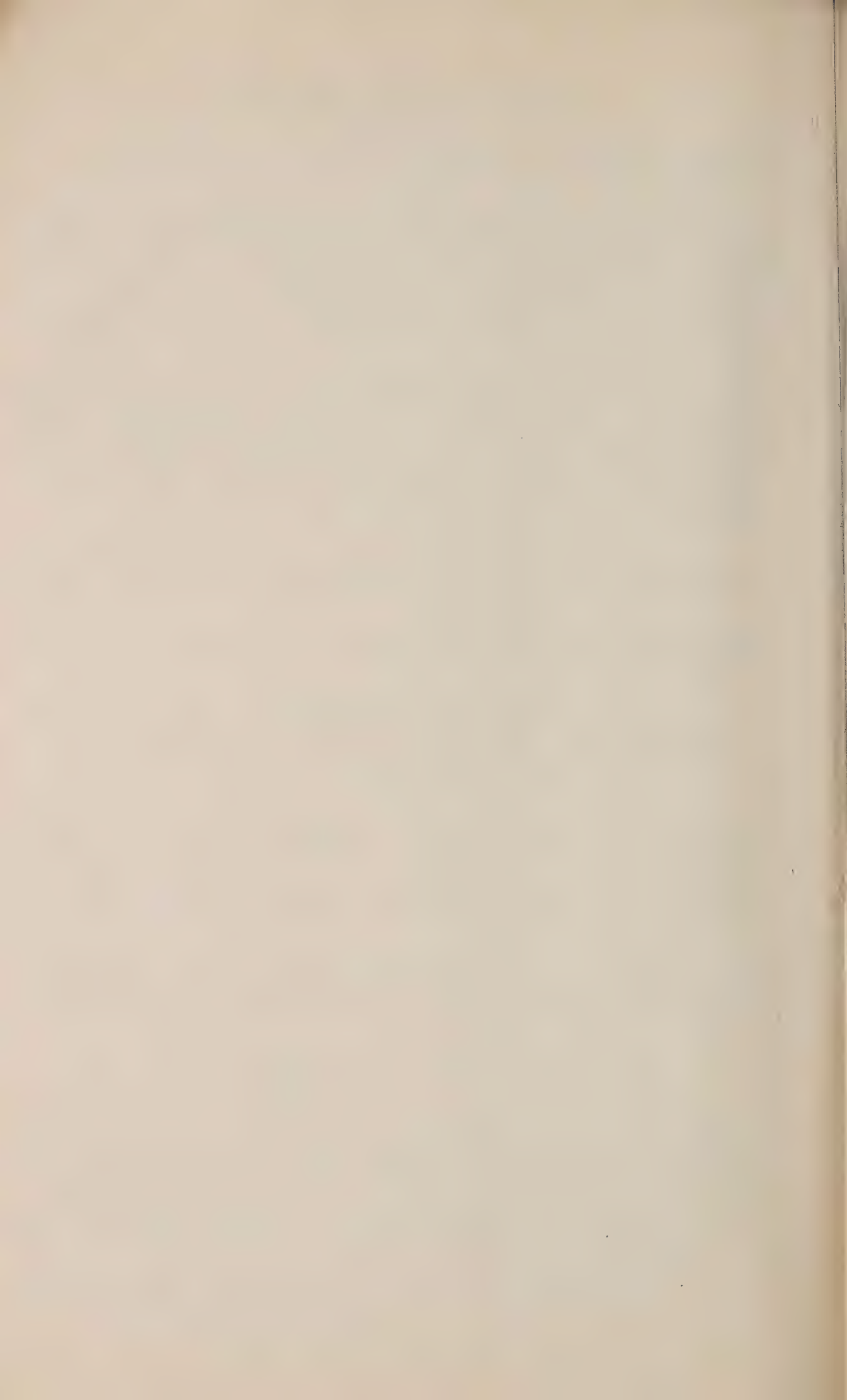
The Tenant Cane Crop was handled by the three coastal estates; Canefield, Checkhall and Belfast. Except for special cases where Goodwill surrendered its half share to tenants in lieu of compensation for areas required for Stock Farm and other projects transport was provided for them while they continued to enjoy the usual half share calculated on the syrup equivalent basis. The sum of \$5,840.65 was paid out to tenants during the year for their share of the cane crop.

RUM: There was a carryover of 3,099 gallons from the previous year augmented by 5,304½ gallons derived from shares of tenants' canes manufactured out during 1952, bringing the total gallonage of rum sold in the course of the year to 8439½ gallons.

Receipts from same being	- \$22,092.93
Plus Arrears	462.00
TOTAL	- \$22,554.93

LIMES: As a result of the diversion of sections of the estate to purposes other than agriculture the area under this crop was reduced to merely five acres of unthrifty West Indian Lime trees. Cultivation was kept at a minimum and no artificial fertilizers applied. Emphasis was placed on the eradication of noxious and parasitic weeds, such as lemon grass and love vine, which were spreading from adjacent abandoned areas at an alarming rate.

The annual crop was 720 barrels sold ripe by tender; receipts for same being \$3,866.81.



COCOA: This crop occurring as isolated trees in tenant gardens for the most part, received no special attention yielded 452 lbs. of dry Cocoa Beans.

Receipts for same being	-	\$ 49.04
Arrears		126.00
Total value of crop		<u>\$175.04</u>

Miscellaneous Crops: Miscellaneous crops which include mangoes, breadfruit avocado pears and bananas (exclusive of Expt. plots) also exposed to theft, because of their scattered nature, contributed the sum of \$145.00 to the revenue.

Pottersville Land Rent: Collection continued to be a problem and court action is being contemplated as a last resort.

Amount collected being \$1,373.92 is a small fraction of the outstanding amounts yet to be collected.

Buildings: Main building housing machinery etc. was kept in good order; C.D.C. continued to rent a portion for use as a storeroom and a small room formerly used for rum storage was turned over to the Banana Association for storing white lime and copper sulphate.

The Estate great house continued to be used for curing and packing vanillas.

The Manager's house occupied by the Livestock Officer was repaired and extended by the addition of a room 10' x 10' at one wing and a garage at the other. Water was also installed and some painting done.

Rental of the above buildings due to be collected by the end of the year amounted to \$735.00

Machinery etc. Although out of operation, were well maintained against deterioration by regular cleaning and the free use of grease.

Vats. were cleaned out and soaked from time to time.

Sale of Boiler: The boiler imported from Barbados was sold by Public Auction for the sum of \$2,001.00

The Canal was maintained as usual i.e. cleaned of silt etc. and patched whenever breaks occurred as a result of floods. Colonial Development Corporation paid 25% of the cost of all such maintenance costs as from January, 1950.

Banana and Food Observation Plots were laid down on the flats adjacent to the Public Works Department buildings and the main road, the primary objects of which were:-

- (a) to secure information on the optimum manurial and spacing requirements of bananas on typical dry coastal areas;
- (b) to serve as a demonstration on the practicability of producing food under similar conditions with proper conservation measures;
- (c) as a source of food and revenue. The area already under limes was contour drained, reinforced by vetivier grass barriers and lined out at distances varying from 6' x 6' - 11' x 11' for bananas, which were interplanted with food crops: sweet potatoes, dasheen, silk yams, tannias etc. The crops suffered some setback from dry weather and did not recover until the rains were well started, when bananas made some headway, a few plants producing fruit at nine months. Unfortunately high winds struck down these early bearers before reaching maturity and no bunches were reaped this year.

Further particulars on these plots are to be supplied in a special report.

Soil Conservation: Attempts at influencing tenants to carry out Soil Conservation measures on their holdings voluntarily met with some success but results were nevertheless too slow to be in keeping with policy and a campaign was started, implemented by funds and junior personnel of the Squatter Control Scheme. About 40 acres were conserved using the following measures singly or in combination. Contour drains, silt pits grass barriers stone terraces bunds and ridges. Unfortunately, a great proportion of the grass plants failed to survive the dry season, necessitating a fair amount of supplying when the weather became favourable.

Livestock: Goodwill Livestock Compound continued to function primarily as a stud Centre for the Roseau area, providing year round services of:-

- 2 Grade Holstein-Zebu Bulls
- 2 Boars purebred large Black and Berkshire
- 1 Black Belly Ram Sheep.

Three working Oxen were maintained for drawing the Estate cart.

The piggery continued to be maintained pending establishment of the Stock Farm

The Large Black Boar and Sow went down to attacks of paralysis. The sow died while the Boar was sold for \$142.79.

The Berkshire sow farrowed ten, one of which died, five were sold by public auction, the remaining four being kept for replacements.

Ten Berkshires, 2 gilts and 8 Boars imported from British Guiana for the Agricultural Stations were received and housed at Goodwill.

The Fish Pond sprung some major leaks which unfortunately could not be repaired through lack of funds. However, Tilapia continue to multiply at a very fast rate though not attaining any appreciable size. Fish were distributed to seven different parties who were interested in fish culture.

Roaming Peasant Stock continued to cause much annoyance despite repeated impounding and shooting.

F. C. Coops

AGRICULTURAL SUPERINTENDENT.

ADMINISTRATION REPORT
FOREST SERVICE 1952

Forest Policy: Dr. Beard's proposals for a Forest Policy as outlined in Bulletin No. 11 of the Development and Welfare organization were adopted in principle on publication of his report and are summarised as a reminder:

- (a) The execution, together with other Departments, of a Land Use Survey of Dominica to provide the necessary data for land planning.
- (b) On completion of (a) to draw up a complete land allocation and conservation policy for Dominica.
- (c) To carry out Forest Reservation and to manage these Reserves in such a manner as to fulfil their protective function in the interests of soil and water conservation, and at the same time to provide the maximum outturn of forest produce on the bases of a sustained yield.
- (d) To carry out research in silviculture and utilization of forest products.
- (e) To educate and train subordinate staff and the public to the benefit of a properly implemented Forest Policy and to the efficient use of Forest Products.
- (f) To encourage private forestry and to assist in establishing Conservation management.
- (g) To protect nature.

A draft Forest policy was prepared for submission, but was not submitted due to pressure of other public business.

The Forest Estate:

(1) Crown Lands. The situation, on the ground of Crown Lands is now known fairly accurately. It is still impossible to quote reliable figures for area due to there being no accurate map. It is clear that several hundred acres of Crown Lands are in illegal possession of estate and small holders. Until survey of the offending owners' lands is carried out it will not be possible to obtain full control of the margins of the main Crown Land Blocks. This is not a serious matter from the point of view of the Forest Estate as it is probable that most of the areas under dispute will become part of the Crown Lands to be kept for Agricultural Expansion.

(2) Private Lands. It is clear that with the few exceptions mentioned in previous reports the private landowner has little intention of preserving forest either for protection or production so long as the forest is sufficiently accessible for full exploitation. Conservative management of Forest is considered too long term. Efforts by the public to protect woodland for Soil and Water Conservation purposes are only taken seriously on slopes over about 60° and where the land is inaccessible for cordwood or charcoal burning. For this reason it is doubly important that the Crown Forest Estate is maintained in good heart.

Communications: There is still no accessible Crown Forest of any value.

Education: With no local press beyond a bi-weekly paper of about 12 pages with limited circulation it is extremely difficult to maintain a sustained educational programme. Hand bills and lectures coupled with routine information talks by field staff to individuals has been the best that can be achieved. Two films one taken in Cyprus and the other in India have been shown but due to the lack of mobile cinema a very small public is reached.

Staff: Forest Service Staff strength remained at 1 Assistant Conservator, 1 Forest Supervisor, 4 Forest Rangers and 9 Forest Guards. The Forest Supervisor left for Cyprus in October to attend the Forestry College at Prodrumes.

Forest Reservation:

The proposed Roseau River Catchment Forest Reserve. Declaration was again delayed due to the Surveyor who carried out the work being engaged in more important duties with his own department. It only remains to plot the traverse. All boundaries have been cut and surveyed.

Proposed Central Forest Reserve Survey was well advanced but due to the departure of the Forest Supervisor on training it was not completed.

Proposed Morne Laurent Forest Reserve. Portions of this proposed reserve have been surveyed in conjunction with Crown Land Sales. Thus, where land is escheated and further sale in the area is considered undesirable the common boundaries between the purchasers of land and the Crown will become the Reserve boundary.

Area. An estimated area of 36,000 acres is on the point of being declared. Final details are preventing execution.

Forest Protection:

Man continues to be the only serious enemy of the Forest. Control of illegal cutting is being maintained and the Full Scheme for Control of Government Lands is having its effect.

The voluntary control system on private lands to prevent larceny still operates and seven more large estates making a total of 14 in all, have availed themselves of the offer of assistance from the Forest Service. The control is simple. The estate owner gives permits to fell and the Forestry Staff refuse to give removal permits from roadside unless the owners permit is produced. The system is only effective for control on the larger estates but as it is in such areas that the most widespread larceny occurs the trouble taken is worthwhile.

Forest Offences

<u>Compounded</u>	(a) Guilty	19	\$120.48
	(b) Warned b Forest Officers	18	-
<u>Court.</u>	(a) Fines	6	¢
	(b) Imprisonment		
	(c) Warned & Discharged	4	
	Outstanding 31.12.52.	12	
		<u>59</u>	<u>\$120.48</u>
¢ Fines paid to General Revenue, not as Forest Revenue.			

Utilization:

Sawn Timber Due to lack of roads Crown Forest is not widely used to supply the needs of the island. Pitsawyers supply the bulk of the sawn timber but due to the expanding banana industry which gives relatively high returns for a small output of work there is little pitsawing done except for specific orders. As a result timber prices on the open market are far higher than they should be.

Timber prices Roseau, December 1952.

Luxury woods eg.	White Cedar	
	Red Cedar	24¢
	Balata	
	Laurier poivre	36¢
	Mahogany	36¢
General purpose	timbers	18¢ bd. ft.



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